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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,905	01/28/2002	Masahiro Yanagisawa	218202US0	1491

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1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

ROBERTSON, JEFFREY

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 03/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/055,905

Applicant(s)

YANAGISAWA, MASAHIRO

Examiner

Jeffrey B. Robertson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 and 24 is/are allowed.
- 6) ☒ Claim(s) 5 and 10-23 is/are rejected.
- 7) ☒ Claim(s) 6-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. 1203
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 1-4 are objected to because of the following informalities: for claim 1, in line 12, the word "minyulsulfonic" should be changed to vinylsulfonic. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 5, 10, 11, 13, 14, 16-20, 22, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Albert (U.S. Patent No. 6,300,932).

For claims 5 and 13, in Figure 9, and column 9, lines 19-31, Albert teaches a display cell containing two electrodes (reference #53) opposed to each other. In Figure 9, light is indicated as moving through the upper or display electrode. In column 11, lines 57-58, Albert teaches that the electrodes may be clear. In column 12, line 35 through column 13, line 61, Albert teaches colored particles. In column 16, lines 32-37, Albert discloses the use of silicone oils as suspending fluid. In column 18, lines 57-65, Albert discloses the use of polymers that have oil-soluble portions, allowing for solubility

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in the silicone oil. For claim 10, in column 21, line 65 through column 22, line 10, Albert teaches water-soluble polymers as binder materials, which would not be soluble in the silicone oil. For claims 11 and 20, in column 9, lines 61-67, Albert discloses particle diameters from 10 nm to 5 micrometers, which overlaps the range claimed by applicant. For claims 5, 13, 16 and 17, in column 17, lines 54-65, Albert teaches that the particles may contain acidic or basic surfaces. In column 17, lines 44-65 and column 18, lines 32-65, Albert teaches that an acid-base reaction occurs, which means that if the particle has acidic groups, polymer contains basic groups and if the particle has basic groups the polymer would have acidic groups. For claim 18, in column 22, line 17, Albert teaches acrylic binders, which contain acidic groups. For claims 14 and 19, Albert teaches in column 20, lines 20-31, Albert teaches that the particles can be grafted with acid groups and amiphipathic polymers. For claims 22 and 23, Albert teaches in column 7, lines 7-26, the presence of voltage connectors to apply a voltage in order to display an image. See also Figure 2.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albert (U.S. Patent No. 6,300,932) as applied to claims 5 and 13 above.

For claims 12 and 21, Albert teaches the limitations of claims 5 and 13 as detailed above. In column 23, lines 6-11, Albert teaches the addition of water at low concentrations. Albert does not specifically teach the range claimed by applicant. However this range would be a result effective variable depending on the nature of the dispersions desired, and the solubility of the components used in the medium. A result effective variable is determined according to the desired properties of the resulting composition and would be obvious to one of ordinary skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Allowable Subject Matter

6. Claims 1-4 and 24 are allowed.
7. Claims 6-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 12/29/03 have been fully considered but they are not persuasive. Regarding the Albert reference, applicant argues that Albert does not disclose or suggest the use of a polymer containing monomers with acidic or basic groups that undergo an acid-base dissociation reaction with a colored particulate material in the composition as required in the present invention. As pointed out in the rejection above, Albert teaches in columns 17 and 18, that acid-base reactions take place between the colored particle and a charge control agent. In column 18, lines 57-65, Albert teaches Charge control agents with acidic or basic groups. It is also noted

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that claim 13 has not been amended and does not include a limitation that an acid-base dissociation reaction is required, although as set forth above, Albert does teach such a reaction. For these reasons, the rejection as set forth above is continued with respect to the Albert reference. Applicant also states that the examiner indicated that the claims as now amended would be allowable over the art of record. The examiner has attached a copy of the interview summary, which does not reflect this assertion. The examiner indicated that amendments would be considered. In addition, as noted above, claim 13 was not amended.

Conclusion

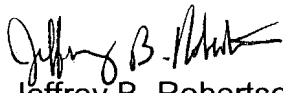
9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeffrey B. Robertson
Primary Examiner
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JBR